## SoPcifications

(On the 4-channel model, CH8 should be read as CH 4 and M8 should be read as M4.)

| Models |
| :--- |
| Model name Frequency bandwidth Analog input Logic input Max. sample rate <br> DLM5038 350 MHz 8 channels 16 bit (Standard)  <br> or     <br> 32 bit (/L32)    |
| DLM5058 |



Frequency characteristics ( -3 dB attenuation when inputting a sinewave of amplitude $\pm 3$ div) ${ }^{1+2}$

|  |  | DLM503x | DLM505x |
| :---: | :---: | :---: | :---: |
| $1 \mathrm{M} \Omega$ (when using attached 10:1 passive probe) | 20 mV to $100 \mathrm{~V} / \mathrm{div}$ | 350 MHz | 500 MHz |
|  | $10 \mathrm{mV} / \mathrm{div}$ | 350 MHz | 350 MHz |
|  | $5 \mathrm{mV} / \mathrm{div}$ | 200 MHz | 200 MHz |
| $50 \Omega$ | 2 mV to $1 \mathrm{~V} /$ div | 350 MHz | 500 MHz |
|  | $1 \mathrm{mV} / \mathrm{div}$ | 350 MHz | 350 MHz |
|  | $500 \mu \mathrm{~V} /$ div | 200 MHz | 200 MHz |
| Isolation between channels | Maximum bandwidth: -34 dB (typical value) |  |  |
| Residual noise level ${ }^{\text {3 }}$ | The larger of 0.2 mVrms or 0.05 div rms (typical value) |  |  |
| A/D resolution | 8 bit (25 LSB/div) Max. 12 bit (in High Resolution mode) |  |  |
| Bandwidth limit | FULL, $200 \mathrm{MHz}, 100 \mathrm{MHz}, 20 \mathrm{MHz}, 10 \mathrm{MHz}, 5 \mathrm{MHz}, 2 \mathrm{MHz}$, $1 \mathrm{MHz}, 500 \mathrm{kHz}, 250 \mathrm{kHz}, 125 \mathrm{kHz}, 62.5 \mathrm{kHz}$, $32 \mathrm{kHz}, 16 \mathrm{kHz}, 8 \mathrm{kHz}$ (can be set for each channel) |  |  |
| Maximum sample rate | Real time sampling mode $2.5 \mathrm{GS} / \mathrm{s}$ |  |  |
|  | Repetitive sampling mode $250 \mathrm{GS} / \mathrm{s}$ |  |  |
| Maximum record length (Points) |  |  |  |
|  | Repeat Single (when odd ch only) |  |  |
|  | Standard model | 12.5 M | 50 M (125M) |
|  | /M1 or /M1S | 25 M | 125 M ( 250 M ) |
|  | /M2 or /M2S | 50 M | 250 M ( 500 M ) |
| Ch-to-Ch deskew | $\pm 1 \mu \mathrm{~s}$ |  |  |
| Time axis setting range | $1 \mathrm{~ns} /$ div to $500 \mathrm{~s} / \mathrm{div}$ (steps | of 1-2-5) |  |
| Time base accuracy ${ }^{1+}$ | $\pm 2.5 \mathrm{ppm}$ (at shipping or ca | ibration), $\pm 1.0$ | ppm/year (ageing) |
| Dead time in N Single mode | Approx. $0.9 \mu \mathrm{~s}$ |  |  |


| Logic Signal Input |  |
| :---: | :---: |
| Number of inputs | 16 bit (/L32: 32 bit) |
| Maximum toggle frequency ${ }^{+1}$ | Model 701988: 100 MHz , Model 701989: 250 MHz |
| Compatible probes | 701988, 701989 (8 bit input) |
| Min. input voltage | 701988: $500 \mathrm{mVp-p}, 701989: 300 \mathrm{mVp}-\mathrm{p}$ |
| Input range | Model 701988: $\pm 40 \mathrm{~V}$ <br> Model 701989: threshold $\pm 6 \mathrm{~V}$ |
| Max. nondestructive input voltage | Model 701988: $\pm 42 \mathrm{~V}$ (DC + ACpeak) or 29 Vrms Model 701989: $\pm 40$ V (DC + ACpeak) or 28 Vrms |
| Threshold level setting range | Model 701988: $\pm 40 \mathrm{~V}$ (setting resolution of 0.05 V ) Model 701989: $\pm 6 \mathrm{~V}$ (setting resolution of 0.05 V ) |
| Input impedance | 701988: Approx. 1 M $2 /$ approx. 10 pF, 701989: Approx. 100 k $\Omega$ /approx. 3 pF |
| Maximum sampling rate | 1.25 GS/s |


| Maximum record length (Points) |  | Repeat | Single |
| :--- | :--- | ---: | ---: |
|  | Standard | 12.5 M | 50 M |
|  | /M1 or /M1S | 25 M | 125 M |
|  | /M2 or /M2S | 50 M | 250 M |

## Triggers

Trigger modes Auto, Auto Level, Normal, Single, N-Single, Force trigger

| Trigger type, trigger source |  |  |  |
| :---: | :---: | :---: | :---: |
| A triggers | Edge | CH 1 to CH 8 , Logic, EXT, LINE |  |
|  | Edge OR | CH 1 to CH 8 |  |
|  | Pulse Width | CH 1 to CH 8 , Logic |  |
|  | Timeout | CH 1 to CH 8 , Logic |  |
|  | Pattern | CH 1 to CH 8 , Logic |  |
|  | Runt | CH 1 to CH 8 |  |
|  | Rise/Fall Time | CH 1 to CH 8 |  |
|  | Interval | CH 1 to CH 8 , Logic |  |
|  | Window | CH 1 to CH 8 |  |
|  | Window OR | CH 1 to CH 8 |  |
|  | TV | CH 1 to CH 8 |  |
|  | Serial Bus | $1^{2} \mathrm{C}$ (optional) | CH 1 to CH8, Logic |
|  |  | SPI (optional) | CH 1 to CH8, Logic |
|  |  | UART (optional) | CH 1 to CH 8 , Logic |
|  |  | FlexRay (optional) | CH 1 to CH 8 |
|  |  | CAN (optional) | CH 1 to CH 8 |
|  |  | CAN FD (optional) | CH 1 to CH 8 |
|  |  | LIN (optional) | CH 1 to CH8 |
|  |  | SENT (optional) | CH 1 to CH8, Logic |
|  |  | CXPI (optional) | CH 1 to CH 8 |
|  |  | User Define | CH 1 to CH 8 |
| $A B$ triggers | A Delay B | 10 ns to 10 s |  |
|  | A to B(n) | 1 to $10^{9}$ |  |
| Trigger level setting range |  | H1 to $\mathrm{CH} 8 \quad \pm 4$ div from center of screen |  |
| Trigger level setting resolution |  | 11 to CH8 0.01 div (TV trigger: 0.1 div) |  |
| Trigger level accuracy ${ }^{\text {¹ }}$ |  | H1 to $\mathrm{CH} 8 \quad \pm 0.04$ div |  |
| Display |  |  |  |
| Display ${ }^{4}$ | 12.1-inch TFT LCD with a capacitive touch screen, $1024 \times 768$ (XGA) |  |  |
| Functions |  |  |  |
| Waveform acquisition modes |  |  |  |
| Normal, Envelope, Average |  |  |  |
| High Resolution mode Max. 12 bit |  |  |  |
| Sampling mode | Real time, interpolation, repetitive |  |  |
| Accumulation | Select OFF, Intensity (waveform frequency by brightness), or Color (waveform frequency by color) <br> Accumulation time: 100 ms to 100 s , Infinite |  |  |
| Roll mode | Enabled at $100 \mathrm{~ms} /$ div to $500 \mathrm{~s} /$ div (depending on the record length setting) |  |  |
| Zoom function | Two zooming windows can be set independently (Zoom1, Zoom2) |  |  |
|  | Zoom factor $\times 2$ to 2.5 poi |  | 10 div (in zoom area) |
|  | Scroll | Auto Scroll |  |


|  | Search functions | Edge, Pulse Width, Timeout, Pattern, $I^{2} \mathrm{C}$ (optional), SPI (optional), UART (optional), CAN (optional), CAN FD (optional), LIN (optional), FlexRay (optional), SENT (optional), CXPI (optional), User Define |
| :---: | :---: | :---: |
| History memory | Max. data (record | length 1.25 k Points, with) /M2 or /M2S: 100000, /M1 or /M1S: 50000, Standard: 20000 |
|  | History search | Select Rect, Wave, Polygon, or Parameter mode |
|  | Replay function | Automatically displays the history waveforms sequentially |
|  | Display | Specified or average waveforms |
| Cursor | Types | $\Delta \mathrm{T}, \Delta \mathrm{V}, \Delta \mathrm{T}$ \& $\Delta \mathrm{V}$, Marker, Degree |
| Snapshot | Currently displaye | d waveform can be retained on screen |

## Computation and Analysis Functions

Parameter Measurement Max, Min, P-P, High, Low, Amplitude, Rms, Mean, Sdev, IntegTY+ IntegTY, +Over, -Over, Pulse Count, Edge Count, V1, V2, $\Delta T$, Frea Period, Avg Freq, Avg Period, Burst, Rise, Fall, +Width, -Width, Duty, Delay
Statistical computation of parameters
Max, Min, Mean, $\sigma$, Count

Trend/Histogram display of wave parameters
Up to 2 trend or histogram display of specified wave parameters
Computations (MATH) $\quad+,-, \times$, Filter (Delay, Moving Avg, IIR Lowpass, IIR Highpass), Integ, Count (Edge, Rotary), user defined math (optional)

Computable no. of traces 8 (M1 to M8) (4 trace for 4 ch model) (mutually exclusive with REF trace)

| Max. computable memory length |  |  |
| :---: | :---: | :---: |
|  | Same as the maximum record length |  |
| Reference function | Up to 8 traces (Ref1 to Ref8) of saved waveform data can be displayed and analyzed (4 trace for 4 ch model) (mutually exclusive with MATH trace) |  |
| Action-on-trigger | Actions: Buzzer, Print, Save, Mail |  |
| GO/NO-GO | Modes: Rect, Wave, Polygon, Parameter Actions: Buzzer, Print, Save, Mail |  |
| X-Y | Displays XY 1 to XY 4 and $\mathrm{T}-\mathrm{Y}$ simultaneously $(\mathrm{XY1}, \mathrm{XY} 2$ and $\mathrm{T}-\mathrm{Y}$ for 4ch model) |  |
| FFT | Number of points: 1.25 k, $2.5 \mathrm{k}, 12.5$ k, 25 k, 125 k, 250 k, 1.25 M <br> Window functions: Rectangular, Hanning, Flat-Top <br> FFT Types: PS (LS, RS, PSD, CS, TF, CH are available with /G02 option) |  |
| Histogram | Displays a histogram of acquired waveforms |  |
| User-defined math (/G02 option) | The following operators can be arbitrarily combined in equations: ,,$+- \times, /$, SIN, COS, TAN, ASIN, ACOS, ATAN, INTEG, DIFF, ABS, SQRT, LOG, EXP, LN, BIN, DELAY, P2 (power of 2), PH, DA, MEAN, HLBT, PWHH, PWLL, PWHL, PWLH, PWXX, FV, DUTYH, DUTYL, FILT1, FILT2 <br> The maximum record length that can be computed is the same as the standard math functions. |  |
| Power supply analysis (/G03 option) |  |  |
| Power analysis | Selectable from 4 analysis types <br> Deskweing between the voltage and current waveforms can be executed automatically. |  |
|  | Switching loss | Measurement of total loss and switching loss, power waveform display, Automatic measurement and statistical analysis of power analysis items (PTurn On, PTurn Off, POn, PTotal, WpTurn On, WpTurn Off, Wp On, WpTotal, Cycle Count) |
|  | Safety operatio | n area SOA analysis by $X-Y$ display, using voltage as $X$ axis, and current as $Y$ axis is possible |
|  | Harmonic analy | sis <br> Basic comparison is possible with following standard Harmonic emission standard IEC61000-3-2 edition 4.0, EN61000-3-2 (2006), IEC61000-4-7 edition 2.1 |
|  | Joule integral | Joule integral ( $1^{2}$ t) waveform display, automatic measurement and statistical analysis is possible |
| Power Measurement | Automated measurement of power parameters for up to four pairs of voltage and current waveforms. Values can be statistically processed and calculated. |  |
|  | Measurement p | parameters <br> Urms, Umn, Udc, Urmn, Uac, U+pk, U-pk, Up-p, Irms, Imn, Idc, Irmn, lac, I+pk, I-pk, Ip-p, P, S, Q, Z, $\lambda$, Wp, Wp+, Wp-, Abs.Wp, q, q+, q-, Abs.q, Avg Freq (voltage, current) |

Common Features of Serial Bus Signal Analysis Functions

| Analysis result display | Decoded information is displayed together with waveforms or <br> in list form. |
| :--- | :--- |
| Auto setup function | A threshold value, time axis scale, voltage axis scale and other <br> bus-specific parameters such as a bit rate and recessive level are <br> automatically detected. |
| Trigger conditions are set based on the detected result and <br> decoded information is displayed. <br> (The type of a bus signal needs to be specified in advance.) |  |
| Search function | Search of all waveforms for a position that matches a pattern or <br> condition specified by data information. |
| Analysis result saving function | Analysis list data can be saved to CSV-format files. |

 2nd byte address, R/W, Data, Presence/absence of ACK, information

| SPI Bus Signal Analysis Functions (/F01 Option) |  |
| :--- | :--- |
| Trigger types | 3 wire, 4 wire <br> After assertion of CS, compares data after arbitrary byte count and <br> triggers. |
| Analyzable signals | CH1 to CH8, Logic input, M1 to M8 |
| Byte order | MSB, LSB |
| Analyzable no. of data | 300000 bytes max. |
| List display items | Analysis no., time from trigger position [Time (ms)], Data 1, Data 2 |

[^0]| Analyzable signals | CH1 to CH8, Logic input, or M1 to M8 |
| :--- | :--- |
| Data format | Select a data format from the following <br> 8 bit (Non Parity), 7 bit Data + Parity, 8 bit + Parity |
| UART trigger modes | Every Data, Data, Error |
| Analyzable no. of data | 300000 bytes max. |
| List display items | Analysis no., time from trigger position [Time (ms)], Data (Bin, Hex) <br> display, ASCIl display, Information. |

CAN Bus Signal Analysis Functions (/F02 Option)

| Applicable bus | CAN version 2.0A/B, Hi-Speed CAN (ISO11898), Low-Speed CAN (ISO11519-2) |
| :---: | :---: |
| Analyzable signals | CH1 to CH8, M1 to M8 |
| Bit rate | 1 Mbps, 500 kbps, 250 kbps, 125 kbps, 83.3 kbps, 33.3 kbps, User Define (an arbitrary bit rate from 10 kbps to 1 Mbps with resolution of 100 bps ) |
| CAN bus trigger modes | SOF, ID/Data, ID OR, Error, Message and signal (enabled when loading physical values/symbol definitions) |
| Analyzable no. of frames | 100000 frames max. |
| List display items | Analysis no., time from trigger position [Time (ms)], Frame type, ID, DLC, Data, CRC, presence/absence of Ack, Information |
| Auxiliary analysis functions | Field jump functions |
| CAN FD Bus Signal Analysis Functions (/F02 Option) |  |
| Applicable bus | CAN FD (ISO 11898-1:2015 and non-ISO) |
| Analyzable signals | CH 1 to CH8, M1 to M8 |
| Bit rate | Arbitration $1 \mathrm{Mbps}, 500 \mathrm{kbps}, 250 \mathrm{kbps}$, User Define (an arbitrary bit rate from 20 kbps to 1 Mbps with resolution of 100 bps) |
|  | Data $8 \mathrm{Mbps}, 5 \mathrm{Mbps}, 4 \mathrm{Mbps}, 2 \mathrm{Mbps}, 1 \mathrm{Mbps}$, 500 kbps , User Define (an arbitrary bit rate from 250 kbps to 10 Mbps with resolution of 100 bps ) |
| CAN FD bus trigger modes | SOF, Error, ID/Data, ID OR, FDF, ESI, Message (enabled when loading physical values/symbol definitions) |
| Analyzable no. of frames | 50000 frames max. |
| List display items | Analysis no., time from trigger position [Time (ms)], Frame type, ID, DLC, Data, CRC, presence/absence of Ack, Information |
| Auxiliary analysis functions | Field jump functions |

LIN Bus Signal Analysis Functions (/F02 Option)

| Applicable bus | LIN Rev. 1.3, 2.0, 2.1 |
| :--- | :--- |
| Analyzable signals | CH1 to CH8, M1 to M8 |
| Bit rate | $19.2 \mathrm{kbps}, 9.6 \mathrm{kbps}, 4.8 \mathrm{kbps}, 2.4 \mathrm{kbps}, 1.2 \mathrm{kbps}$, User Define (an <br> arbitrary bit rate from 1 kbps to 20 kbps with resolution of 10 bps$)$ |
| LIN bus trigger modes | Break Synch, ID/Data, ID OR, Error |
| Analyzable no. of frames | 100000 frames max. |
| List display items | Analysis no., time from trigger position [Time (ms)], ID, ID-Field, <br> Data, Checksum, Information |
| Auxiliary analysis functions | Field jump functions |

FlexRay Bus Signal Analysis Functions (/F03 Option)

| Applicable bus | FlexRay Protocol Version 2.1 |
| :--- | :--- |
| Analyzable signals | CH 1 to $\mathrm{CH} 8, \mathrm{M} 1$ to M8 |
| Bit rate | $10 \mathrm{Mbps}, 5 \mathrm{Mbps}, 2.5 \mathrm{Mbps}$ |
| FlexRay bus trigger modes | Frame Start, Error, ID/Data, ID OR |
| Analyzable no. of frames | 5000 frames max. |
| List display items | Analysis no., time from trigger position [Time (ms)], Segment (Static <br> or Dynamic), Indicator, FramelD, PayLoad length, Cycle count, |

SENT Signal Analysis Functions (/F04 Option)

| Applicable standard |  | J2716 APR2016 and older |
| :---: | :---: | :---: |
| Analyzable signals |  | CH 1 to CH 8 , Logic input, or M1 to M8 |
| Clock period |  | $1 \mu \mathrm{~s}$ to $100 \mu \mathrm{~s}$ with resolution of $0.01 \mu \mathrm{~s}$ |
| Data type | Fast channel | Nibbles/User Defined |
|  | Slow channel | Short/Enhanced |
| SENT trigger modes |  | Every Fast CH, Fast CH Status \& Communication, Fast CH Data, Every Slow CH, Slow CH ID/Data, Error |
| Analyzable no. of frames |  | 100000 frames max. |
| List display items | Fast channel | Analysis no., time from trigger position [Time (ms)], Sync/Cal period, Tick, Status \& Comm, Data, CRC, frame length, Information |
|  | Slow channel | Analysis no., time from trigger position [Time (ms)], ID, Data, CRC, information |
| Auxiliary analysis functions |  | Trend functions (up to 4 trend waveforms) |
| CXPI Bus Signal Analysis Functions (/F05 Option) |  |  |
| Applicable bus | CXPI JASO D | 015-3:2015 |
| Analyzable signals | CH 1 to CH 8 , | M1 to M8 |


| $\begin{array}{ll}\text { Bit rate } & 19.2 \\ & \text { from }\end{array}$ | 19.2 kbps , $9.6 \mathrm{kbps}, 4.8 \mathrm{kbps}$, User Define (an arbitrary bit rate from 4 kbps to 50 kbps with resolution of 10 bps ) |
| :---: | :---: |
| Analyzable no. of frames 1000 | 10000 frames max. |
| List display items $\begin{array}{ll}\text { Analy } \\ & \text { CT, D }\end{array}$ | Analysis no., time from trigger position [Time (ms)], ID, DLC, W/S, CT, Data, CRC, error information, Wakeup/Sleep |
| GP-IB (/C1 Option) |  |
| Electromechanical specifications | Conforms to IEEE std. 488-1978 (JIS C 1901-1987) |
| Protocol | Conforms to IEEE std. 488.2-1992 |
| Auxiliary Input |  |
| Rear panel I/O signal | External trigger input, External trigger output, GO/NO-GO output, Video output |
| Probe interface terminal (front panel) | 8 terminals (DLM50x8), 4 terminals (DLM50x4) |
| Probe power terminal (side panel) | 8 terminals (/P8 option), 4 terminals (/P4 option) |
| Internal Storage (Standard model, /C8 Option) |  |
| Capacity Standard model: Approx. 1.7 GB, /C8 option: Approx. 64 GB |  |
| Built-in Printer (/B5 Option) |  |
| Built-in printer 112 mm wide, monochrome, thermal |  |
| USB Peripheral Connection Terminal |  |
| Connector | USB type A connector $\times 2$ (front panel $\times 2$ ) |
| Electromechanical specifications | USB 2.0 compliant |
| Supported transfer standards | High Speed, Full Speed, Low Speed |
| Supported devices | USB Printer Class Ver. 1.0 compliant HP (PCL) inkjet printers, USB Mass Storage Class Ver. 1.1 compliant mass storage devices (Usable capacity: 8 TB, Partition format: GPT/MBR, File format: exFAT/FAT 32/FAT 16) <br> * Please contact your local YOKOGAWA sales office for model names of verified devices |
| USB-PC Connection Terminal |  |
| Connector | USB type B connector $\times 1$ |
| Electromechanical specifications | USB 3.0 compliant |
| Supported transfer standards | Super Speed, High Speed, Full Speed |
| Supported class | Mass Storage Class Ver. 1.1 <br> USBTMC-USB488 (USB Test and Measurement Class Ver. 1.0) |
| Ethernet |  |
| Connector | RJ-45 connector $\times 1$ |
| Transmission methods | Ethernet (1000BASE-T/100BASE-TX/10BASE-T) |
| Supported services | Server: FTP, VXI-11, Socket Client: FTP, SMTP, SNTP, LPR, DHCP, DNS |
| General Specifications |  |
| Rated supply voltage | 100 to $120 \mathrm{VAC} / 220$ to 240 VAC (Automatic switching) |
| Rated supply frequency | $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$ |
| Maximum power consumption | 290 VA |
| External dimensions | $426(\mathrm{~W}) \times 266(\mathrm{H}) \times 180(\mathrm{D}) \mathrm{mm}$ (when printer cover is closed, excluding protrusions) |
| Weight | Approx. 7.3 kg , With no options |
| Operating temperature range | $5^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$ |

*1: Measured under standard operating conditions after a 30-minute warm-up followed by calibration. Standard operating conditions: Ambient temperature: $23^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C}$, Ambient humidity: $55 \pm 10 \% \mathrm{RH}$ Standard operating conditions: Ambient temperature: $23^{\circ} \mathrm{C}$
*2: Value in the case of repetitive phenomenon. The frequency bandwidth of a single-shot phenomenon is the smaller of the two values, DC to sampling frequency/2.5 or the frequency bandwidth of the repetitive phenomenon.
*3: When the input section is shorted, the acquisition mode is set to Normal, accumulation is OFF, and the probe attenuation is set to $1: 1$.
4: The LCD may include a few defective pixels (within 3 ppm over the total number of pixels including RGB).
External Dimensions


## Model and Suffix Codes

| Model ${ }^{1 /}$ | Suffix code | Description |
| :---: | :---: | :---: |
| DLM5038 |  | Mixed Signal Oscilloscope: $8 \mathrm{ch}, 350 \mathrm{MHz}$ |
| DLM5058 |  | Mixed Signal Oscilloscope: $8 \mathrm{ch}, 500 \mathrm{MHz}$ |
| DLM5034 |  | Mixed Signal Oscilloscope: $4 \mathrm{ch}, 350 \mathrm{MHz}$ |
| DLM5054 |  | Mixed Signal Oscilloscope: $4 \mathrm{ch}, 500 \mathrm{MHz}$ |
| Power cord | -D | UL/CSA Standard and PSE compliant |
|  | -F | VDE/Korean Standard |
|  | -Q | British Standard |
|  | -R | Australian Standard |
|  | -H | Chinese Standard |
|  | -N | Brazilian Standard |
|  | -T | Taiwanese Standard |
|  | -B | Indian Standard |
|  | -U | IEC Plug Type B |
| Language | -HJ | Japanese message and panel |
|  | -HE | English message and panel |
|  | -HC | Chinese message and panel |
|  | -HG | German message and panel |
|  | -HF | French message and panel |
|  | -HK | Korean message and panel |
|  | -HL | Italian message and panel |
|  | -HS | Spanish message and panel |
| Option | /L32 | Expansion logic 16bit (Total 32 bit) |
|  | /B5 | Built-in printer ( 112 mm ) |
|  | /M1 ${ }^{-2}$ | Memory expansion option (8 ch model only) During continuous measurement: 25 Mpoints; Single mode: 125 Mpoints/ 250 Mpoints $^{3}$ |
|  | /M2 ${ }^{\text {² }}$ | Memory expansion option (8 ch model only) During continuous measurement: 50 Mpoints; Single mode: 250 Mpoints/ 500 Mpoints $^{3}$ |
|  | /M1S ${ }^{\text {2 }}$ | Memory expansion option (4 ch model only) During continuous measurement: 25 Mpoints; Single mode: 125 Mpoints/ 250 Mpoints $^{3}$ |
|  | /M2S ${ }^{\text {2 }}$ | Memory expansion option (4 ch model only) During continuous measurement: 50 Mpoints; Single mode: 250 Mpoints/ 500 Mpoints $^{3}$ |
|  | /P8 ${ }^{4}$ | 8 probe power terminals (for $8 \mathrm{ch} \mathrm{model)}$ |
|  | /P4* ${ }^{4}$ | 4 probe power terminals (for $4 \mathrm{ch} \mathrm{model)}$ |
|  | /C1 | GP-IB interface |
|  | /C8 | Internal storage ( 64 GB ) |
|  | /G02 | User-defined math function |
|  | /G03 | Power supply analysis function |
|  | /F01 | UART + ${ }^{2} \mathrm{C}+$ SPI trigger and analysis |
|  | /F02 | CAN + CAN FD + LIN trigger and analysis |
|  | /F03 | FlexRay trigger and analysis |
|  | /F04 | SENT trigger and analysis |
|  | /F05 | CXPI trigger and analysis |
|  | /E1 ${ }^{\text {5 }}$ | Four additional 701937 probes (8 in total) (for 8 ch model) |
|  | /E2 ${ }^{-5}$ | Attach four 701949 probes |
|  | /E3 ${ }^{\text {5 }}$ | Attach eight 701949 probes (for $8 \mathrm{ch} \mathrm{model)}$ |

Standard Main Unit Accessories
Power cord, Passive probe ${ }^{66}$, Protective front cover, Panel sheet ${ }^{7}$, Soft carrying case for probes, Printer roll paper (for /B5 option), User's manuals ${ }^{\text {8 }}$
*1: Standard memory capacity: During continuous measurement: 12.5 Mpoints; Single mode: 50 Mpoints/125 Mpoints (when odd channels only) Logic probes sold separately.
*2,*5: When selecting from these options, please select only one
*3: When odd channels only
*4: Specify this option when using current probes or other differential probes that don't support probe interface.
*6: Four 701937 except /E2 or /E3.
*7: Except suffix code "-HE"
*8: Start guide as the printed material, and User's manual as CD-ROM are included.

## Accessory Models

| Name | Model | Specification |
| :---: | :---: | :---: |
| Logic probe (PBL100) | 701988 | $1 \mathrm{M} \Omega$, toggle freq. of 100 MHz |
| Logic probe (PBL250) | 701989 | $100 \mathrm{k} \Omega$, toggle freq. of 250 MHz |
| Passive probe ${ }^{-1}$ | 701937 | $10 \mathrm{M} \Omega$ ( $10: 1$ ), $500 \mathrm{MHz}, 1.3 \mathrm{~m}$ |
| Miniature passive probe | 701949 | $10 \mathrm{M} \Omega$ ( $10: 1$ ), $500 \mathrm{MHz}, 1.3 \mathrm{~m}$ |
| Passive probe (Wide temperature range) | 702907 | $10 \mathrm{M} \Omega$ (10:1), 200 MHz , $2.5 \mathrm{~m}-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| FET probe ${ }^{-1}$ | 700939 | DC to $900 \mathrm{MHz} \mathrm{BW}, \mathrm{2.5} \mathrm{M} / 1.8 \mathrm{pF}$ |
| 100:1 voltage probe | 701944 | DC to $400 \mathrm{MHz} \mathrm{BW}, \mathrm{1.2} \mathrm{m}$, |
| 100:1 voltage probe | 701945 | DC to $250 \mathrm{MHz} \mathrm{BW}, 3 \mathrm{~m}, 1000 \mathrm{Vrms}$ |
| Differential probe | 701920 | DC to 500 MHz BW , max. $\pm 12 \mathrm{~V}$ |
| Differential probe | 701921 | DC to $100 \mathrm{MHz} \mathrm{BW}, \mathrm{max}. \pm 700 \mathrm{~V}$ |
| Differential probe | 701922 | DC to 200 MHz BW , max. $\pm 20 \mathrm{~V}$ |
| Differential probe (PBDH1000) | 701924 | DC to $1 \mathrm{GHz} \mathrm{BW}, 1 \mathrm{M} \Omega$, max. $\pm 25 \mathrm{~V}$ |
| Differential probe | 701926 | DC to $50 \mathrm{MHz} \mathrm{BW}, 7000$ Vpeak |
| Differential probe (PBDH0150) | 701927 | DC to $150 \mathrm{MHz} \mathrm{BW}, \max . \pm 1400 \mathrm{~V}$ |
| Differential probe | 700924 | DC to $100 \mathrm{MHz} \mathrm{BW}, \max . \pm 1400 \mathrm{~V}$ |
| Differential probe | 700925 | DC to 15 MHz BW, max. $\pm 500 \mathrm{~V}$ |
| Current probe ${ }^{2}$ | 701917 | DC to $50 \mathrm{MHz} \mathrm{BW}$,5 Arms |
| Current probe ${ }^{2}$ | 701918 | DC to $120 \mathrm{MHz} \mathrm{BW,5}$ Arms |
| Current probe (PBC050) ${ }^{2}$ | 701929 | DC to $50 \mathrm{MHz} \mathrm{BW}, 30 \mathrm{Arms}$ |
| Current probe (PBC100) ${ }^{2}$ | 701928 | DC to $100 \mathrm{MHz} \mathrm{BW}, 30 \mathrm{Arms}$ |
| Current probe ${ }^{2}$ | 701930 | DC to $10 \mathrm{MHz} \mathrm{BW}, 150 \mathrm{Arms}$ |
| Current probe ${ }^{2}$ | 701931 | DC to $2 \mathrm{MHz} \mathrm{BW}, 500$ Arms |
| Deskew correction signal source | 701936 | For deskew correction |
| Go/No-Go Cable | 366973 | For GO/NO-GO output terminal |
| Printer roll paper | B9988AE | Lot size is 10 rolls, 10 meters each |
| Probe stand | 701919 | Round base, 1 arm |
| Soft carrying case | 701968 | With 3 pockets for storage |
| Rack mount kit | 701969-E | EIA standard-compliant |
| Rack mount kit | 701969-J | JIS standard-compliant |

*1: Please refer to the Probes and Accessories brochure for probe adapters.
*2: Current probes' maximum input current may be limited by the number of probes used at a time

## Accessory Software

| Model | Name | Specification |
| :--- | :--- | :--- |
| $\frac{701992-S P 01}{701992-G P 01 ~}$ | Xviewer | Standard edition |
|  |  | Math edition |

## Additional Option License for DLM5000*

| Model | Suffix code | Description |
| :---: | :---: | :---: |
| 709821 | -G02 | User defined math |
|  | -G03 | Power supply analysis function |
|  | -F01 | UART + ${ }^{2} \mathrm{C}+\mathrm{SPI}$ trigger and analysis |
|  | -F02 | CAN + CAN FD + LIN trigger and analysis |
|  | -F03 | FlexRay trigger and analysis |
|  | -F04 | SENT trigger and analysis |
|  | -F05 | CXPI trigger and analysis |

*1: Separately sold license product (customer-installable).
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## -NOTICE

- Before operating the product, read the user's manual thoroughly for proper and safe operation.

This is a Class A instrument based on Emission standards EN61326-1 and EN55011, and is designed for an industrial environment. Operation of this equipment in a residential area may cause radio interference, in which case users will be responsible for any interference which they cause.
https://tmi.yokogawa.com/
YMI-KS-MI-SEO7

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[^0]:    UART Signal Analysis Functions (/F01 Option)
    Bit rate
    115200 bps, 57600 bps, 38400 bps, 19200 bps, 9600 bps, 4800 bps, 2400 bps, 1200 bps, User Define (an arbitrary bit rate from 1 k to 10 Mbps with resolution of 100 bps )

